AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application

Listing of the Claims

1. (Currently amended) A ~~process~~ method for plasma treating an intraocular or contact lens comprising the steps of :

supporting [[one]] a surface of the intraocular or contact lens with a spindle to expose ~~the other~~ an opposite surface of the lens to a first treatment process;

using the spindle as one electrode, generating a glow discharge proximate the exposed opposite surface of the lens;

transferring the lens to ~~another~~ an opposite spindle to support the treated opposite surface of the lens and to expose the [[other]] surface of the lens to a second treatment process; and

generating a glow discharge proximate the exposed [[other]] surface of the lens.

2. (Currently amended) The method of claim 1 wherein the [[lens]] spindle has a concave ~~posterior~~ surface and [[a]] the opposite spindle has a convex ~~anterior~~ surface.

3. (Currently amended) The method of claim [[2]] 1 wherein [[one]] the spindle has a convex surface and the [[other]] opposite spindle has a concave surface.

4. (Currently amended) The method of claim 1 wherein the spindles have ~~openings in their~~ supporting surfaces ~~that support the lens and said~~ with openings that are connected to conduits for applying a pressure or a vacuum to [[hold]] the lens ~~or discharge the lens, respectively~~.

5. (Original) The method of claim 1 wherein the plasma treatment is conducted for not more than one minute.

6. (Currently amended) The method of claim 5 wherein the plasma treatment is conducted for not more than [[about]] ten seconds.

7. (Original) The method of claim 1 further comprising the steps of holding the lens on a spindle and polishing the edges of the lens.

8. (Original) The method of claim 1 wherein the step of generating a glow discharge comprises the steps of introducing an inert gas and a reactive gas proximate the exposed surface of the lens and applying a voltage across the lens to generate a plasma proximate the exposed surface.

9. (Canceled)

10. (Currently amended) The method of claim 1 wherein the ~~plasma operation~~ generating of the glow discharge is conducted at atmospheric pressure or reduced pressure.

11. (Currently amended) The method of claim 1 wherein the ~~plasma is surrounded by atmosphere or is isolated from atmosphere~~ first or the second treatment process includes generating a plasma proximate to the spindles, wherein the area proximate to the spindles comprises an oxidizing atmosphere.

12. (Currently amended) A ~~process for simultaneously~~ method for plasma treating multiple intraocular lenses or contact lenses comprising the steps of:

supporting [[one]] a surface of each lens with a ~~support tray~~ transfer plate to substantially expose ~~the other~~ an opposite surface of the lens to a treatment process, wherein the transfer plate includes an array of spindles with a concave or convex surface upon which the surface of each lens is supported;

moving the ~~support tray~~ transfer plate along a process path;

generating a first glow discharge proximate the process path to treat the exposed opposite surface of the lenses;

~~rotating~~ transferring the lenses to an opposite transfer plate to substantially expose ~~their other~~ the surface, wherein the opposite transfer plate includes an array of opposite spindles with a concave or convex surface upon which the opposite surface of each lens is supported;

moving the ~~rotated~~ transferred lenses along the process path;

generating a second glow discharge proximate the process path to treat the ~~exposed, other~~ surface of each of the lenses.

13. (Currently amended) The method of claim 12 wherein the first and the second glow discharges are ~~the same~~ conducted under identical process conditions and the lenses reverse direction along the process path after ~~rotation~~ the transferring of the lenses.

14. (Currently amended) The method of claim 12 wherein the glow discharges are generated by ~~a plurality of elongated~~ an array of plasma generating heads arranged transverse or parallel to the process path.

15. (Original) The method of claim 12 wherein the lenses stop along the process path in the glow discharge for surface treatment.

16. (Original) The method of claim 12 wherein the lenses continuously move past the glow discharge.

17. (Original) The method of claim 12 wherein the lenses move relative to the glow discharge.

18. (Original) The method of claim 12 wherein the lenses and the glow discharge travel together.

19. (Canceled)

20. (Currently amended) The method of claim 12 wherein the glow discharge ~~region(s) are~~ is generated by an array of plasma ~~generator~~ generating heads.

21. (Currently amended) The method of claim 20 wherein the number of plasma generating heads corresponds to the number of lenses simultaneously undergoing plasma treatment.

22. - 24. (Canceled)

25. (Withdrawn) An apparatus for plasma treating an iol or contact lens comprising:

first and second spindles, each having a support for one surface of a lens and for exposing the other surface of the lens to a treatment process, each spindle also comprising an electrode for acting as one of two electrodes during a plasma treatment process, wherein said spindles are disposed opposite each other;

means for introducing noble and reactive gases into a region surrounding the lens;

means connected to the spindles for applying an electrical voltage between the spindles to generate a glow discharge proximate the exposed surface of the lens;

means for transferring the lens from the first spindle to the second spindle in order to treat the other surface of the lens.

26. (Withdrawn) The apparatus of claim 25 wherein the lens has a concave posterior surface and a convex anterior surface.

27. (Withdrawn) The apparatus of claim 26 wherein on spindle has a convex surface and the other spindle has a convex surface.

28. (Withdrawn) The apparatus of claim 25 wherein the spindles have openings in their surfaces that support the lens and said openings are connected to conduits for applying a pressure or a vacuum to hold the lens or discharge the lens, respectively.

29.(Withdrawn) The apparatus of claim 25 further comprising the means for holding the lens on a spindle and polishing the edges of the lens.

30. (Withdrawn) The apparatus of claim 25 wherein the voltage is DC or AC.

31. (Withdrawn) The apparatus of claim 25 wherein the plasma operation is conducted at atmospheric pressure or reduced pressure.

32. (Withdrawn) The method of claim 25 wherein the plasma is surrounded by atmosphere or is isolated from atmosphere.

33. (Withdrawn) An apparatus for simultaneously plasma treating multiple ophthalmic lenses, said lenses each having first and second surfaces, said apparatus comprising:

a support tray for supporting said first surface of each lens and exposing said second surface of each lens to a treatment process;

means for moving the support tray along a process path;

means for generating a first glow discharge proximate the process path to treat said second surface of the lenses;

means for rotating the lenses to expose said first surface thereof;

means for moving the rotated lenses along the process path;

means for generating a second glow discharge proximate the process path to treat the first surface of the lenses.

34. (Withdrawn) The apparatus of claim 33 wherein the first and the second glow discharges are the same and the lenses reverse direction along the process path after rotation.

35. (Withdrawn) The apparatus of claim 33 wherein the means for generating glow discharges are a plurality of elongated plasma heads arranged transverse or parallel to the process path.

36. (Withdrawn) The apparatus of claim 33 wherein the glow discharge means comprises an array of plasma generator heads.

37. (Withdrawn) The apparatus of claim 33 wherein the number of heads corresponds to the number of lenses simultaneously undergoing plasma treatment.

38. (Withdrawn) An apparatus for simultaneously plasma treating multiple ophthalmic lenses, comprising:

a tray for holding a plurality of lenses each having first and second surfaces in an array, each lens disposed over an opening in the tray so that each lens is supported by the tray on the outer edge of the lens whereby both surfaces of the lens are exposed to a treatment process;

an array of pairs of plasma generating electrodes corresponding to the lenses in the tray, each pair of plasma generating electrodes having one electrode disposed above its corresponding lens and another electrode disposed below its corresponding lens;

means for introducing noble and reactive gases proximate one of the exposed surfaces of the lenses;

means for applying a voltage to one electrode and grounding the other electrode of each pair for generating a first glow discharge to treat one of the exposed surfaces of the lenses; and

means for applying a voltage to the other electrode and grounding the one electrode of each pair for generating a second glow discharge to treat the other exposed surfaces of the lenses.

39. (New) The process of claim 1 wherein the spindle or the opposite spindle is one of a plurality of spindles that extend from a transfer plate.

40. (New) The method of claim 12 wherein the spindles extending from the transfer plate have a convex surface and the opposite spindles extending from the opposite transfer plate have a concave surface.

41. (New) The method of claim 12 wherein the spindles extending from the transfer plate have a concave surface and the opposite spindles extending from the opposite transfer plate have a convex surface.

42. (New) The method of claim 1 wherein the first and the second glow discharges are conducted under identical process conditions and the lenses reverse direction along the process path after the transferring of the lenses.

43. (New) The method of claim 12 wherein the steps of generating a glow discharge comprises introducing an inert gas and a reactive gas proximate the exposed surfaces of the lenses and applying a voltage across the lenses to generate a plasma proximate the exposed surfaces.